Abstract:

A confocal wafer inspection system including: (a) a table to carry a wafer for inspection, the table having two vertical degrees of freedom to enable XY axis movements; (b) a movement device for moving the table along the degrees of freedom; (c) a confocal height measurement system, perpendicular to the table, for measuring the range to a point on a surface of the wafer and for enabling to recognize changes in surface altitude while the wafer moves with the table; and (d) a computer operative for: (i) holding a bumps map of the wafer; (ii) controlling the movement device; (iii) moving the table so that the measuring point of the confocal height measurement system crosses each bump of the wafer; (iv) storing a height profile of each bump; (v) comparing the height profiles or checking each height profile according to predetermined criteria or both; and (vi) enabling a results output. The invention also relates to a method for confocal wafer inspection.